

**PENDING CLAIMS AS AMENDED**

Please amend the claims as follows:

1. (canceled)
2. (canceled)
3. (canceled)
4. (canceled)
5. (canceled)
6. (canceled)
7. (canceled)
8. (canceled)
9. (canceled)
10. (canceled)

11. (original) A method of performing a plurality of segmentable search tasks, in a single searcher, comprising:

interrupting a first search task in progress;  
storing state information for the first search task;  
performing a second search task;  
accessing state information for the first search task; and  
continuing the first search task using the accessed state information.

12. (original) A method of performing a plurality of segmentable search tasks, in a single searcher, comprising:

performing a first search task, selecting a first storage element for storing partial results and state information for the first search task;  
interrupting the first search task with a second search task;  
performing the second search task, selecting a second storage element for storing partial results and state information for the second search task; and  
returning to the first search task, re-selecting the first storage element for accessing partial results and state information for the first search task.

13. (canceled)

14. (original) Processor readable media operable to perform the following steps:  
interrupting a first search task in progress;  
storing state information for the first search task;  
performing a second search task;  
accessing state information for the first search task; and  
continuing the first search task using the accessed state information.

15. (original) Processor readable media operable to perform the following steps:  
performing a first search task, selecting a first storage element for storing partial results  
and state information for the first search task;  
interrupting the first search task with a second search task;;  
performing the second search task, selecting a second storage element for storing partial  
results and state information for the second search task; and  
returning to the first search task, re-selecting the first storage element for accessing  
partial results and state information for the first search task.

16. (canceled)

17. (original) A single searcher for performing a plurality of segmentable search  
tasks, comprising:  
means for interrupting a first search task in progress;  
means for storing state information for the first search task;  
means for performing a second search task;  
means for accessing state information for the first search task; and  
means for continuing the first search task using the accessed state information.

18. (original) A single searcher for performing a plurality of segmentable search  
tasks, comprising:

means for performing a first search task, selecting a first storage element for storing partial results and state information for the first search task;

means for interrupting the first search task with a second search task;;

means for performing the second search task, selecting a second storage element for storing partial results and state information for the second search task; and

means for returning to the first search task, re-selecting the first storage element for accessing partial results and state information for the first search task.

19. (canceled)

20. (currently amended) An apparatus comprising:

two or more storage elements that store state information associated with two or more search tasks ; and

a selector, having a selector input, selecting one of the two or more storage elements in accordance with the selector input, the selector input:

indicating the selection of a first of the two or more storage elements for use in a first of the two or more search tasks during a first time period,

indicating the selection of a second of the two or more storage elements for use in a second of the two or more search tasks during a second time period, and

indicating the selection of the first of the two or more storage elements for use in the first of the two or more search tasks during a third time period.

21. (previously added) The apparatus of claim 20, further comprising a searcher for delivering state information associated with the respective two or more search tasks to the two or more storage elements and for accessing state information associated with one of the two or more search tasks for performing the respective search task.

22. (previously added) The apparatus of claim 21, wherein the searcher comprises a non-coherent accumulator, partial accumulations from which are stored in ones of the two or more storage elements corresponding to ones of the two or more search tasks.

23. (previously added) The apparatus of claim 21, wherein the searcher comprises a coherent accumulator, partial accumulations from which are stored in ones of the two or more storage elements corresponding to ones of the two or more search tasks.

24. (previously added) The apparatus of claim 21, wherein the searcher comprises a peak detector, peak detector state information for which is stored in ones of the two or more storage elements corresponding to ones of the two or more search tasks.

25. (previously added) The apparatus of claim 21, wherein the searcher comprises a sorter, sorting information for which is stored in ones of the two or more storage elements corresponding to ones of the two or more search tasks.

26. (currently amended) The apparatus of claim 4, 20 further comprising a processor connected to the two or more storage elements, operable to load and retrieve state information therefrom.

27. (currently amended) The apparatus of claim 4, 20 wherein the two or more storage elements are located in a random access memory (RAM).

28. (currently amended) The apparatus of claim 4, 20 wherein the two or more storage elements are located in banks of registers.

29. (previously added) A method comprising:

partitioning a first search task into a plurality of search segments, the length of time to process each segment being less than or equal to a contiguous segment of time allotted for processing the first search task;

performing each of the plurality of search segments, storing the results in a first one of a plurality of storage elements; and

performing a plurality of alternate search tasks, selecting ones of the remainder of the plurality of storage elements for processing therewith, the alternate search tasks being processed

in time periods between the processing of ones of the plurality of search segments of the first search task.

30. (previously added) Processor readable media operable to perform the following steps:

partitioning a first search task into a plurality of search segments, the length of time to process each segment being less than or equal to a contiguous segment of time allotted for processing the first search task;

performing each of the plurality of search segments, storing the results in a first one of a plurality of storage elements; and

performing a plurality of alternate search tasks, selecting ones of the remainder of the plurality of storage elements for processing therewith, the alternate search tasks being processed in time periods between the processing of ones of the plurality of search segments of the first search task.

31. (previously added) An apparatus comprising:

means for partitioning a first search task into a plurality of search segments, the length of time to process each segment being less than or equal to a contiguous segment of time allotted for processing the first search task;

means for performing each of the plurality of search segments, storing the results in a first one of a plurality of storage elements; and

means for performing a plurality of alternate search tasks, selecting ones of the remainder of the plurality of storage elements for processing therewith, the alternate search tasks being processed in time periods between the processing of ones of the plurality of search segments of the first search task.